APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,508	06/19/2001	Jeffrey A. Bedell	53470.003042	8696

			EXAMINER
21967	7590	02/03/2006	ZHEN, LI B

HUNTON & WILLIAMS LLP
INTELLECTUAL PROPERTY DEPARTMENT
1900 K STREET, N.W.
SUITE 1200
WASHINGTON, DC 20006-1109

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/883,508	BEDELL ET AL.
	Examiner	**Art Unit**	
	Li B. Zhen	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

SUPER... THOMSON
...ENT EXAMINER

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 18 are pending in the application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   **Claims 1, 3 – 5, 10 – 12 and 16 – 18 are rejected under 35 U.S.C. 103(a) as**

being unpatentable over U.S. Patent NO. 5,854,932 to Mariani in view of U.S.

Patent No. 6,167,563 to Fontana et al. [hereinafter referred to as Fontana, both

references cited in the previous office action].

4.   As to claim 1, Mariani teaches the invention substantially as claimed including a

computer implemented method for managing groups of objects [source code files 60

and header files] for use in a reporting system project [a development environment 52

which includes various tools 54 for creating, editing, and compiling source code files 60

and header files 62 for a user's programming project; col. 7, line 60 – col. 8, line 7]

comprising the steps of:

        receiving a command [modify] to perform a selected function on a selected object

[With the editors 70, the user can directly modify or add C++ statements to the source

code files 60 and header files 62; col. 8, lines 7 – 22];

identifying using a computer processor dependent objects referred to by the

selected object [for each of the object code files 82...the minimal rebuild system 100

generates dependency information...consisting of a set of classes...on which the

respective object code file depends, and a set of dependency types...of the object code

file on each class in the set; col. 12, lines 27 – 67];

determining using a computer processor an appropriate manner of executing the

selected function [minimal rebuild system 100 determines when recompiling can be

avoided by determining how the object code files 82 are dependent on the header files

62; col. 9, lines 1 – 15];

determining using a computer processor appropriate functions to be performed

on the dependent objects [minimal rebuild system 100 selectively recompiles the source

code files 60...so as to detect changes to all header files 62...that were changed since

the last build of the project. The minimal rebuild system 100 then utilizes the detected

changes to the header files 62 to determine which of the remaining source code files 60

to recompile and which recompiles can be avoided; col. 17, lines 18 – 30];

causing the appropriate functions to be performed on the dependent objects

[omit compiling selected source file and resave object file, step 174, Fig. 6B; compile

selected source file into object file, step 176, Fig. 6B; col. 19, lines 33 – 67]; and

causing the execution of the selected function on the selected object in the

appropriate manner [minimal rebuild system 100 first recompiles the source code files

that were changed since the user's project was last built; col. 17, lines 30 – 43].

5.   Although Mariani teaches the invention substantially as claimed, Mariani does

not specifically teach automatically identifying dependent objects, automatically causing

appropriate functions to be performed on the dependent objects and automatically

causing execution of the selected function on the selected object.

However, Fontana teaches a wrapper tool to develop interfaces for a component

or any third party developed software that helps in the component build process [col. 4,

lines 10 – 30], automatically identifying dependent objects [dependencies are then

analyzed to identify dependent components (block 65); col. 7, lines 22 – 34],

automatically causing appropriate functions to be performed on the dependent objects

[if the user does want to update dependent components (yes leg of the diamond 66),

then the dependent components are retrieved from the source control program (block

69); col. 7, lines 35 – 43] and automatically causing execution of the selected function

on the selected object [dependent components are accordingly updated (block 76); col.

7, lines 43 – 58].

6.   It would have been obvious to a person of ordinary skill in the art at the time of

the invention to apply the teaching of automatically identifying dependent objects,

automatically causing appropriate functions to be performed on the dependent objects

and automatically causing execution of the selected function on the selected object as

taught by Fontana to the invention of Mariani because this provides a method for

building or modifying software components inside a computer system and updating all

dependent components automatically in a manner transparent to the user and the

computer system [col. 1, lines 33 – 37 of Fontana].

7.   As to claim 10, this is a system claim that corresponds to method claim 1; note

the rejection to claim 1 above, which also meet this system claim.

8.   As to claim 18, this is a product claim that corresponds to method claim 1; note

the rejection to claim 1 above, which also meet this product claim.

9.   As to claim 3, Mariani teaches the step of causing the appropriate functions to be

performed on the dependent objects is performed prior to the step of causing the

execution of the selected function in the appropriate manner [minimal rebuild system

100 reorders this list to place any source code files 60 that have changed since the

user's project was last rebuilt first in the list; col. 17, lines 43 – 65].

10.   As to claim 4, Mariani teaches the objects are grouped in projects and the

selected function relates to manipulating objects within and between projects [For use in

creating and editing the source code files 60 and header files 62 of the user's project,

the development tools 54 of the environment 52 comprise one or more editors 70, and

automated source code generators 72; col. 8, lines 7 – 22] and wherein within each

project each object has a unique identifier [search for a name in the scope of the class;

col. 13, lines 25 – 50] and a version identifier [date and time of the last change made to

the header files; col. 10, lines 8 – 45].

11.   As to claim 5, Mariani teaches comparing dependent objects at a source and

objects at a destination to determine whether an object at the destination exists in an

identical form to each of the dependent objects at the source and whether an object at

the destination exists in a modified form to each of the dependent objects at the source

[minimal rebuild system 100 preferably determines which of the header files 62 were

changed since the project was last built by comparing the date stamps of the header

files to their last known date stamps; col. 18, lines 34 – 48] and determining, based on

the step of comparing, which dependent object to copy from the source to the

destination such that the selected object remains complete after execution of the

selected function in the appropriate manner [the minimal rebuild system 100 selects the

next source code file in the list that is not yet recompiled. At step 171, the minimal

rebuild system 100 checks whether the object code file that was compiled in a previous

build of the project from the selected source code file still exists; col. 19, lines 7 – 32].

12.   As to claim 11, Mariani teaches the operational module interfaces [classes for

interfacing with database management systems; col. 8, lines 23 – 43] with projects that

reside in various environments [Class dependency information is similarly reduced for

manually generated projects that use a class library; col. 12, lines 28 – 67].

13.   As to claim 12, this is rejected for the same reasons as claim 3 above.

14.   As to claims 16 and 17, these are rejected for the same reasons as claim 5

above.

15.   **Claims 2, 6 – 9 and 13 – 15 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Mariani and Fontana further in view of U.S. Patent NO.

6,112,024 to Almond [cited in the previous office action].

16.   As to claim 2, Mariani as modified does not teach the selected object is

contained in metadata of an on-line analytical processing system.

          However, Almond teaches an object cycle versioning system [col. 2, lines 39 –

52] and an object contained in metadata [maps an object into a meta model which

facilitates version control; col. 3, lines 1 – 54 and col. 6, lines 40 – 67] of an on-line

analytical processing program [View reports--quickly view project activity status; col. 39,

lines 15 – 39].

17.   It would have been obvious to a person of ordinarily skilled in the art at the time

of the invention to apply the teaching of storing an object in metadata of an on-line

analytical processing system as taught by Almond to the invention of Mariani as

modified because this map objects to representations and allow operations supported

by the system for versioning will execute correctly even if the objects are stored in a

format other than a relational database, such as an object-oriented database, a file

server, or other storage system [col. 3, lines 3 – 10 of Almond].

18.   As to claim 6, Mariani as modified teaches the step of receiving is a step of receiving a command to copy a selected object from a source project to a destination project [Get--copy one or multiple objects to the user's local directory; col. 39, lines 16 – 39 of Almond].

19.   As to claim 7, Mariani as modified teaches the unique identifier [search for a name in the scope of the class; col. 13, lines 25 – 50 of Mariani] and version identifier [date and time of the last change made to the header files; col. 10, lines 8 – 45 of Mariani] of objects in the source project are similar to the unique identifier and version identifier of objects in the destination project [minimal rebuild system 100 preferably determines which of the header files 62 were changed since the project was last built by comparing the date stamps of the header files to their last known date stamps; col. 18, lines 34 – 48 of Mariani].

20.   As to claim 8, Mariani as modified teaches comparing unique identifiers [search for a name in the scope of the class; col. 13, lines 25 – 50 of Mariani] and version identifiers [date and time of the last change made to the header files; col. 10, lines 8 – 45 of Mariani], whether the selected object exists in the destination project in an identical form and whether the selected object exists in the destination project in a modified form [minimal rebuild system 100 preferably determines which of the header files 62 were changed since the project was last built by comparing the date stamps of the header files to their last known date stamps; col. 18, lines 34 – 48 of Mariani]; and

selecting whether to copy the selected object from the source project to the

destination project [Get--copy one or multiple objects to the user's local directory; col.

39, lines 16 – 39 of Almond], to replace an object in the destination project with the

selected object [compile selected source file into object file, step 176, Fig. 6B; col. 19,

lines 33 – 67 of Mariani], and to keep an object in the destination project as is [omit

compiling selected source file and resave object file, step 174, Fig. 6B; col. 19, lines 33

– 67 of Mariani].

21.   As to claim 9, Mariani as modified teaches the step of selecting includes

prompting the user for a selection [user can directly modify or add C++ statements to

the source code files 60 and header files 62; col. 8, lines 7 – 23 of Mariani].

22.   As to claim 13, Mariani as modified teaches the operation module interfaces

[RPC interface allows the system to surface an Object Cycle API...for development

system clients; col. 2, lines 39 – 54 of Almond] with projects of an on-line analytical

processing system [View reports--quickly view project activity status; col. 39, lines 15 –

39 of Almond].

23.   As to claim 14, Mariani as modified teaches the operational module, upon

receiving a user command to copy the selected object from a source project to a

destination project [Get--copy one or multiple objects to the user's local directory; col.

39, lines 16 – 39 of Almond], determines, by comparing the unique identifiers [search for

a name in the scope of the class; col. 13, lines 25 – 50 of Mariani] and the version

identifiers [date and time of the last change made to the header files; col. 10, lines 8 –

45 of Mariani], whether the selected object exists in the destination project in an

identical form and whether the selected object exists in the destination project in a

modified form [minimal rebuild system 100 preferably determines which of the header

files 62 were changed since the project was last built by comparing the date stamps of

the header files to their last known date stamps; col. 18, lines 34 – 48 of Mariani].

24.   As to claim 15, Mariani as modified teaches the operational module

communicates with the user interface to select whether to copy the selected object from

the source project to the destination project [Get--copy one or multiple objects to the

user's local directory; col. 39, lines 16 – 39 of Almond], to replace an object in the

destination object with the selected object [compile selected source file into object file,

step 176, Fig. 6B; col. 19, lines 33 – 67 of Mariani], and to keep an object in the

destination project as is [omit compiling selected source file and resave object file, step

174, Fig. 6B; col. 19, lines 33 – 67 of Mariani].

Conclusion

25.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Patent No. 6,487,713 to Cohen et al. teaches a software development

system that develops a product from core library of source code elements.

CONTACT INFORMATION

26.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2194

lbz

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Requirement for Information

1.   Applicant and the assignee of this application are required under 37 CFR 1.105

to provide the following information that the examiner has determined is reasonably

necessary to the examination of this application.

2.   The information is required to enter in the record the art suggested by the

applicant as relevant to this examination in the Request for Pre-appeal brief conference

dated 8/11/2005. In the Request for Pre-appeal brief conference, applicant noted that

the features of the present patent application were introduced in MicroStrategy 7.x [p. 2,

lines 10 – 13]. Examiner respectfully requests a copy of MicroStrategy 7.x so that the

reference can be properly considered.

3.   The applicant is reminded that the reply to this requirement must be made with

candor and good faith under 37 C.F.R. 1.56. Where the applicant does not have or

cannot readily obtain an item of required information, a statement that the item is

unknown or cannot be readily obtained will be accepted as a complete reply to the

requirement for that item.

4.   The fee and certification requirements of 37 C.F.R. 1.97 are waived for those

documents submitted in reply to this requirement. This waiver extends only to those

documents within the scope of this requirement under 37 C.F.R. 1.105 that are included

in the applicant's first complete communication responding to this requirement. Any

supplemental replies subsequent to the first communication responding to this

requirement and any information disclosures beyond the scope of this requirement

under 37 C.F.R. 1.105 are subject to the fee and certification requirements of 37 C.F.R.

1.97.

5.   This Office action has an attached requirement for information under 37 CFR

1.105. A complete reply to this Office action must include a complete reply to the

attached requirement for information. The time period for reply to the attached

requirement coincides with the time period for reply to this Office action.

CONTACT INFORMATION

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768.

The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Thomson can be reached on 571-272-3718. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2194

lbz

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER